depression. Fore tarsal comb consisting of long pale spines of which there are three on segment 1, and one each on segments 2 and 3, and all of a length well exceeding the diameter of the tarsal segments at the point of attachment of these spines. Second submarginal cell receiving second recurrent vein. Tergites strongly punctate. Vestiture: moderate silvery pile.

Holotype female from CRONISE VALLEY, SAN BERNARDINO COUNTY, CALIFORNIA, April 29, 1956; on *Prosopis* (P. D. Hurd, collector) and is on deposit in the California Academy of Sciences. Male unknown.

Separated from *Solierella albipes* (Ashmead) and *S. bridwelli* Williams by having a tarsal comb and by its much more generous malar space. The ventral mandibular notches are about equal in *S. mandibularis* and *S. albipes*, but in *S. briwelli* it is much less developed.

PHORETIC SCELIONIDS ON GRASSHOPPERS OF THE GENUS MELANOPLUS

(Hymenoptera:Scelionidae)

U. N. LANHAM AND F. C. EVANS

Saline Valley Farms, Saline, Michigan, and
Department of Zoology, University of Michigan

In the course of an ecological study of the insect fauna of an old-field community[1] in southern Livingston County, Michigan, a number of grasshoppers of the genus *Melanoplus* were collected with one, two or three adult winged parasitic wasps, *Scelio bisulcus* (Ashmead), clinging to the undersurface of the abdomen. The numerous references in the literature to scelionids on North American grasshoppers are apparently based on two early records: that of Ashmead (1893:241) for a specimen of *Scelio* found on a "short-winged locust" and that of Warner (1903) for another taken from *Dichromorpha viridis*. Ashmead supposed that the wasp attaches itself to the grasshopper with the intention of finding out where the eggs were to be deposited. Recently, Channa Basavanna (1953) observed individuals of *Lepidoscelio viatrix* to leave the Indian grasshopper *Orthacris (Colemania)* when it oviposited and to lay their eggs in its egg masses. A general discussion of the phoretic relationship between scelionids and grasshoppers, together with a photograph of *L. viatrix* attached to its orthopteran host, was published by Brues (1917).

The abandoned field, situated on the Edwin S. George Reserve

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of the University of Michigan, is a 12-acre plot bordered by oak-hickory woodlots and covered with mixed grasses (especially *Poa compressa* and *Aristida purpurascens*) and a variety of forbs. It has not been cultivated for more than 30 years and is now infiltrated with widely scattered seedlings of hardwoods and junipers. In 1957, four species of *Melanoplus* — *keeleri luridus* (Dodge), *c. confusus* Scudder, *f.-r. femur-rubrum* (De Geer), and *m. mexicanus* (Saussure)—were collected from the field. The last species was relatively uncommon. Scelionid wasps were observed on 13 individuals of the first three species, as follows:

keeleri luridus: one wasp on each of five specimens—July 31, September 3, 5.

c. confusus: seven wasps on four specimens, one grasshopper with three, one with two wasps—July 15.

f.r. femur-rubrum: one wasp on each of four specimens—September 5, 9, 14.

These specimens were collected by U. N. Lanham, R. E. Lanham and F. C. Evans. All the wasps and their grasshopper hosts were adult females; none of several hundred male and immature grasshoppers that were examined carried wasps. So persistently did the wasps cling to the grasshoppers that one was still attached after its host had thumped about in a small cardboard box for an hour or more, and others held on with a death grip when in cyanide tubes. The wasps had seized with their jaws the intersegmental membranes at the anterior end of the abdomen, beneath and on the lower sides and no farther back than the second suture. All faced the same direction as the grasshopper. The strongly depressed body form, unusual for a hymenopteran, would seem to fit them well for their mode of transport.

We are indebted to C. F. Muesebeck for identification of the wasps and to I. J. Cantrall for that of the grasshoppers.

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